



## The Environmental Impacts of Styrofoam

### INTRODUCTION

The production, use, and disposal of Polystyrene (a substance more commonly known as Styrofoam) causes adverse environmental and health effects. These impacts are of considerable concern, as, according to the Environmental Protection Agency, Styrofoam is the fifth largest source of hazardous waste in the United States

### PRODUCTION

- Styrofoam is composed of Benzene and Styrene, both of which are known human carcinogens.<sup>1</sup>
- 90,000 workers are estimated to be exposed to Styrene every year. This exposure causes a variety of mutations to the central and peripheral nervous systems.<sup>1</sup>
- Benzene and Styrene have been linked to incidences of both Parkinson's disease and leukemia.<sup>1</sup>
- The production of Styrofoam is energy intensive, creating large amounts of greenhouse gases. These problems rank the environmental production costs of Styrofoam as second worst in the U.S. by the California Integrated Waste Management Board.<sup>1</sup>
- Hydrofluorocarbons (HFCs), used in the production of Styrofoam, result in air pollution, causing damage to the ozone layer. They are now known to be 3-5 times more dangerous than originally believed.<sup>1</sup>

### USE

- Microwaving Styrofoam causes the release of toxic chemicals, which poses a threat to human health.<sup>2</sup>

### DISPOSAL

- Polystyrene is not usually recycled due to its lightweight nature and the high economic cost of transporting and degreasing the petroleum-based material.<sup>1,2</sup>
- 25-30% of landfills are dedicated to plastics, including styrofoam.<sup>2</sup>
- Polystyrene takes at least five hundred years to decompose.<sup>2</sup>
- Styrofoam is the primary source of urban litter.<sup>2</sup>
- Styrofoam is the main pollutant of oceans, bays, and other United States water sources.<sup>2</sup>
- Styrofoam causes choking and starvation in wildlife.<sup>2</sup>

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1. "Polystyrene Foam Report." The Earth Resource Foundation.  
<<http://www.earthresource.org/>>.

2. "Polystyrene Fast Facts." The Way to Go.  
<<http://www.way-to-go.org/>>.